

REMARKS/ARGUMENTS

Claims 1, 3-9, 11-18, 20-52, 54 and 55 are pending in the captioned application. Claims 16-18, 20-52, 54 and 55 are withdrawn. Claims 1, 3-9, 11-15 are finally rejected.

Claims 1, 3- 9 and 11-15 stand rejected under 35 U.S.C. §103(a) as being obvious over Bergstrom et al. US 6426315). Applicants respectfully disagree.

Applicants first submit that the claimed invention relates to a separation matrix comprising a porous support and ligands coupled to the surfaces of porous support, characterized by the presence of at least one chemical gradient in the support provided by the ligands. The at least one chemical gradient is defined as a continuous and smooth gradient, and extends between the center and the exterior surface of each porous particle.

Applicants submit that Bergstrom et al. disclose matrices with a layered structure. However, as the Examiner admitted, the structure in Bergstrom et al. does not provide a continuous and smooth ligand gradient. Furthermore, although it is well known that gradients could be designed to be either stepwise or continuous, Applicants submit that such gradients are generally used in centrifugation or electrophoresis applications. Even though salt or pH gradients are widely used in separation techniques, they have been used as part of the buffer system. Never before has there been any suggestion that a “continuous and smooth gradient” can be achieved in the separation matrix itself. This kind of gradient gives much better

separation of components with similar properties. In a step wise gradient such components would end up at the same “step” and are thus not separated from each other.

Applicants respectfully assert that the claims are not obvious in view of Bergstrom et al. The claims are in allowable form, and Applicants earnestly solicit the allowance of claims 1, 3-9 and 11-15.

Early and favorable consideration is respectfully requested.

Respectfully submitted,

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